STIC Search Report
EIC 2800

STIC Database Tracking Number 14898

TO: Kenneth Whittington
AU 2862
Location: JEF-7A24
2/28/2005
10/685,680

From: Jeff Harrison
Location: STIC-EIC2800
JEF-4B68
Phone: 22511

Email: harrison, jeff

Search Notes

Re: Method: Compare a map of a group of servo sectors/bursts with a reference map to determine if any sectors/bursts are missing

Attached are search result from patent and nonpatent literature.

I tagged three patents, but I suggest that you browse the results.

If you have questions or comments, or would like further searching or assistance, let me know.

Respectfully,

Jeff Harrison
Team Leader, STIC-EIC2800
JEF-4B68, 571-272-2511

STIC Search Results
Feedback Form

EIC 2800

Questions about the scope or the results of the search? Contact *the EIC searcher or contact*:

Jeff Harrison, EIC 2800 Team Leader
571-272-2511, JEF 4B68

Voluntary Results Feedback Form

➢ *I am an examiner in Workgroup:* ☐   *Example: 2810*

➢ *Relevant prior art **found**, search results used as follows:*

☐ 102 rejection

☐ 103 rejection

☐ Cited as being of interest.

☐ Helped examiner better understand the invention.

☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

☐ Foreign Patent(s)

☐ Non-Patent Literature
(journal articles, conference proceedings, new product announcements etc.)

➢ *Relevant prior art **not found:***

☐ Results verified the lack of relevant prior art (helped determine patentability).

☐ Results were not useful in determining patentability or understanding the invention.

Comments:

sira
Search and Information
Resources Administration

SEARCH REQUEST FORM   Scientific and Technical Information Center - EIC2800
Rev. 3/15/2004   This is an experimental format -- Please give suggestions or comments to Jeff Harrison, JEF-4B68, 272-2511.

Date 2-10-05   Serial # 10/695 680   Priority Application Date _____

Your Name Kenneth Whittington   Examiner # 78599

AU 2862   Phone 272-2264   Room JEF - 7A24

In what format would you like your results? Paper is the default.   PAPER   DISK   EMAIL

If submitting more than one search, please prioritize in order of need.

The EIC searcher normally will contact you before beginning a prior art search. If you would like to sit with a searcher for an interactive search, please notify one of the searchers.

Where have you searched so far on this case?
Circle: USPT   DWPI   EPO Abs   JPO Abs   IBM TDB

Other: _____

What relevant art have you found so far? Please attach pertinent citations or Information Disclosure Statements. _____

_____

What types of <u>references</u> would you like? Please checkmark:

Primary Refs ____   Nonpatent Literature ____   Other _____
Secondary Refs ____   Foreign Patents ____   _____
Teaching Refs ____   _____

What is the topic, such as the **novelty**, motivation, utility, or other specific facets defining the desired **focus** of this search?   Please include the concepts, synonyms, keywords, acronyms, registry numbers, definitions, structures, strategies, and anything else that helps to describe the topic. Please attach a copy of the abstract and pertinent claims.

- Servo Bursts / Sectors Map/List
- Flaws / Missing
- Compare
- Reference Map/List

SEARCH REQUEST FORM
Scientific and Technical Information Center

Requester's Full Name: Kenneth Whittington   Examiner# : 78599   Date: 2/10/05

Art Unit: 2862   Phone Number: 30 22264   Serial Number: 10/685680

Mail Box and Bldg/Room Location: 7A24 JEF   Results Format Preferred (circle): Paper Disk E-mail

If more than one search is submitted, please prioritize searches in order of need.
****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: High Throughput Missing Pattern Detector for Servo Printed Recording Medi

Inventors (please provide full names): Shih-fu Lee, David Kuo, Jason Pressesky

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Earliest Priority Filing Date: 10/15/03

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

I have the structural features of the hard disk drive. However I am looking for the method wherein a map or list of detected servo-bursts or servo-sectors is compared to a prerecorded map to determine if any servo-bursts/sectors are missing.

IC G11B 005/86

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28feb05 12:39:58 User259284 Session D3091.6

SYSTEM:OS - DIALOG OneSearch
   File 350:Derwent WPIX 1963-2005/UD,UM &UP=200513
         (c)   Thomson Derwent
   File 347:JAPIO Nov 1976-2004/Oct(Updated 050208)
         (c)   JPO & JAPIO
   File 94:JICST-EPlus 1985-2005/Jan W3
         (c)2005 Japan Science and Tech Corp(JST)

Set	Items	Description
S1	105499	SERVO???????????
S2	94	S1 AND MISSING
S3	1243	S1 AND MAP????????
S4	109	S1 AND LIST???????
S5	3275	S1 AND IMAG????????
S6	4574	S1 AND PATTERN??????
S7	37	S1 AND OVERLAY????????
S8	1639	S1 AND SUBTRACT???????
S9	10946	S1 AND COMPAR???????
S10	7222	S1 AND REFERENC???????
S11	46	S2 AND S3:S10
S12	12	S7 AND S2:S6
S13	4	S7 AND S8:S10
S14	102	8AND9AND10
S15	5	S2:S6 AND S14
S16	0	2AND7
S17	0	4AND7
S18	1	4AND2
S19	19	S12:S13 OR S15:S18
S20	19	RD S19 (unique items)
S21	9	S20 AND (MAGNETIC??? OR HARD?? OR DISC?? OR DISK?? OR HDD?? OR DRIVE??)
S22	0	S20 AND (BURST???? OR SERVOBURST????? OR CROSSBURST?????)
S23	579	S1 AND (BURST???? OR SERVOBURST????? OR CROSSBURST?????)
S24	325	S2:S20 AND S23
S25	87	S24 AND COMPAR???????
S26	93	S24 AND REFERENC??????
S27	4	S24 AND SUBTRACT?????
S28	0	S24 AND OVERLAY??????
S29	29	25AND26
S30	48	S19 OR S29
S31	48	RD S30 (unique items)
S32	37	S31 AND (METHOD?? OR SERVOSECTOR??? OR SECTOR???? OR DETECT??????)
S33	29	S31 AND (BURST???? OR SERVOBURST????? OR CROSSBURST?????)
S34	25	32AND33

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      25feb05 15:41:40 User259284 Session D3090.2
File   2:INSPEC 1969-2005/Feb W2        (c)   Institution of Electrical Engineers

Set     Items     Description
S1          0     CROSS()BURST?????
S2          0     CROSSBURST?????
S3          0     SERVOBURST?
S4         23     SERVO()BURST?
S5         16     SERVO()SECTOR????
S6         55     SERVO??(2N)SECTOR????
S7          0     SERVOSECTOR????
S8         28     SERVO??(4N)BURST?????
S9     317740     PATTERN????????
S10        12     S1:S8 AND S9
S11         2     S10 AND COMPAR?????????
S12         0     S10 AND STANDARD???????
S13         1     S10 AND MAP??????
S14         0     S10 AND LIST???????
S15         3     S11:S13
S16      8045     SERVOMECHANISM???????
S17       305     SERVO()MECHANISM???????
S18     10605     R1:R4 OR R6:R9
S19      1287     HDD? ? OR H()D()D
S20      7900     HARD()(DISK???? OR DISC????)
S21      8354     (DISK???? OR DISC????)()DRIV?????
S22     19074     S18:S21
S23     19074     S22 AND S4:S21
S24        78     S22 AND BURST?????
S25    204666     R1:R2
S26    159782     'SENSING DEVICES' OR R6:R30 OR R36:R37 OR R38:R40
S27         3     S23:S24 AND R25:R26
S28         3     S27 NOT S15
S29         0     MISSING?? AND S28
S30      1578     MISSING?? AND S1:S28
S31        37     S30 AND S16:S21
S32        37     S31 NOT (S27 OR S15)
S33         2     S32 AND LIST?????
S34         1     S32 AND MAP??????
S35         3     S33:S34
S36      4449     FLAW DETECTION   (January 1985)
S37         7     S18:S21 AND S36
S38         6     S37 NOT (S35 OR S27:S28)
S39      1065     MAGNETIC RECORDING NOISE   (January 1995)
S40     19502     FAILURE ANALYSIS   (January 1969)
S41       140     S18:S21 AND S39
S42        46     S18:S21 AND S40
S43         1     41AND42
S44         1     36AND41
S45         1     36AND42
S46        82     S9 AND S39
S47       733     S9 AND S40
S48        24     S41:S42 AND S46:S47
S49        14     S35 OR S38 OR S15 OR S27
S50        24     S43:S45 OR S48
S51        23     S50 NOT S49
S52         2     S51 AND REFERENCE??
S53         1     S51 AND STANDARD????????
S54         0     S51 AND PREDETERMIN????????
S55         2     S52:S53
S56        13     S51 AND HARD
S57        11     S56 NOT S55
S58    658756     (DETECT???? OR DETERMIN?????????OR PREDETERMIN??????? OR MEASUR???????? OR SOFTWARE
                  OR PROGRAM?????? OR MAP????? OR LIST????)/TI.
S59        10     S51 NOT S56
S60         1     58AND59
<------User Break------>
---Logging off of Dialog---
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28feb05 14:16:37 User259284 Session D3092.2

SYSTEM:OS - DIALOG OneSearch
   File 350:Derwent WPIX 1963-2005/UD,UM &UP=200513
          (c) 2005 Thomson Derwent
*File 350: For more current information, include File 331 in your search.
Enter HELP NEWS 331 for details.
   File 347:JAPIO Nov 1976-2004/Oct(Updated 050208)
          (c) 2005 JPO & JAPIO
*File 347: JAPIO data problems with year 2000 records are now fixed.
Alerts have been run. See HELP NEWS 347 for details.

Set	Items	Description
S1	2785	(MANY OR SEVERAL OR PLURAL OR FOUR OR THREE OR FIVE OR SIX OR GROUP)(2N)SECTOR? ?
S2	2287	S1 AND SECTORS
S3	65887	COMPAR?????(5N)REFERENC????
S4	3	2AND3
S5	1	S1 AND (MAP?????? OR GRAPH???? OR PLOT?????? OR OVERLAY???-?? OR SUBTRACT?????)(8N)PATTERN??????
S6	0	S1 AND (MAP?????? OR GRAPH???? OR PLOT?????? OR OVERLAY???-?? OR SUBTRACT?????)(8N)BURST?????
S7	0	S1 AND (MAP?????? OR GRAPH???? OR PLOT?????? OR OVERLAY???-?? OR SUBTRACT?????)(8N)CROSSBURST????
S8	1	S1 AND (MAP?????? OR GRAPH???? OR PLOT?????? OR OVERLAY???-?? OR SUBTRACT?????)(8N)SERVO???????
S9	14	S1 AND SERVO()PATTERN?????
S10	0	S1 AND SERVOPATTERN?????
S11	9	FLAW??????? AND S1
S12	351	DETECT????? AND S1
S13	4	MISSING AND S1
S14	24	S12 AND REFERENC????
S15	50	S5:S11 OR S13:S14
S16	3	S15 AND SECTOR()GROUP??
S17	6	S15 AND SECTOR????(2N)GROUP??
S18	6	S16:S17
S19	5	S18 NOT S4
S20	44	S15 NOT (S19 OR S4)
S21	1	S20 AND (MAP?????? OR LIST????? OR GRAPH????? OR PLOT?????-?)(6N)PATTERN????????
S22	1	S20 AND (MAP?????? OR LIST?????OR GRAPH????? OR PLOT?????-?)(6N)SECTOR?????
S23	2	S21:S22

? b 256

28feb05 12:21:15 User259284 Session D3091.4

File 256:TecInfoSource 82-2005/Jan
(c)   Info.Sources Inc

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Set   Items   Description
---   -----   -----------
S1      29   SERVO?????????
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28feb05 12:23:28 User259284 Session D3091.5

SYSTEM:OS - DIALOG OneSearch
   File   9:Business & Industry(R) Jul/1994-2005/Feb 25
       (c)   The Gale Group
   File 15:ABI/Inform(R) 1971-2005/Feb 28
       (c)   ProQuest Info&Learning
*File 15: Alert feature enhanced for multiple files, duplicate
removal, customized scheduling. See HELP ALERT.
   File 16:Gale Group PROMT(R) 1990-2005/Feb 28
       (c)   The Gale Group
*File 16: Alert feature enhanced for multiple files, duplicate
removal, customized scheduling. See HELP ALERT.
   File 18:Gale Group F&S Index(R) 1988-2005/Feb 28
       (c)   The Gale Group
   File 20:Dialog Global Reporter 1997-2005/Feb 28
       (c)   The Dialog Corp.
   File 36:MetalBase 1965-20050105
       (c)   The Dialog Corporation
   File 80:TGG Aerospace/Def.Mkts(R) 1982-2005/Feb 28
       (c)   The Gale Group
   File 148:Gale Group Trade & Industry DB 1976-2005/Feb 28
       (c)2005 The Gale Group
*File 148: Alert feature enhanced for multiple files, duplicate
removal, customized scheduling. See HELP ALERT.
   File 160:Gale Group PROMT(R) 1972-1989
       (c) 1999 The Gale Group
   File 256:TecInfoSource 82-2005/Jan
       (c)   Info.Sources Inc
   File 275:Gale Group Computer DB(TM) 1983-2005/Feb 28
       (c)   The Gale Group
   File 481:DELPHES Eur Bus 95-2005/Feb W3
       (c)   ACFCI & Chambre CommInd Paris
   File 583:Gale Group Globalbase(TM) 1986-2002/Dec 13
       (c) 2002 The Gale Group
 *File 583: This file is no longer updating as of 12-13-2002.
   File 621:Gale Group New Prod.Annou.(R) 1985-2005/Feb 28
       (c)   The Gale Group
   File 624:McGraw-Hill Publications 1985-2005/Feb 28
       (c)   McGraw-Hill Co. Inc
*File 624: Homeland Security & Defense and 9 Platt energy journals added
Please see HELP NEWS624 for more
   File 635:Business Dateline(R) 1985-2005/Feb 26
       (c)   ProQuest Info&Learning
   File 636:Gale Group Newsletter DB(TM) 1987-2005/Feb 28
       (c)   The Gale Group
   File 647:CMP Computer Fulltext 1988-2005/Feb W2
       (c)   CMP Media, LLC
   File 674:Computer News Fulltext 1989-2005/Feb W3
       (c)   IDG Communications
   File 696:DIALOG Telecom. Newsletters 1995-2005/Feb 27
       (c)   The Dialog Corp.

Set	Items	Description
S1	856	SERVO??(2N)DATA
S2	30	SERVODATA
S3	149	SERVO??(2N)BURST????
S4	2	SERVOBURST????
S5	2	SERVOPATTERN?
S6	173	SERVO??(2N)PATTERN????
S7	183	CROSS???(2N)BURST???
S8	0	CROSSBURST???
S9	39	S1:S2 AND S3:S4
S10	20	S1:S2 AND S5:S6
S11	0	S1:S2 AND S7
S12	0	S3:S4 AND S7
S13	12	S3:S4 AND S5:S6
S14	57	S9:S13
S15	0	S14 AND COMPAR?????(6N)REFERENC????
S16	2	S14 AND FLAW????
S17	37	S14 AND TRACK
S18	27	S14 AND TRACKS
S19	0	S14 AND MISSING
S20	4	S14 AND MISS?????
S21	30	S14 AND DETECT??????
S22	9	S14 AND MAP??????
S23	6	S14 AND LIST??????
S24	0	S14 AND PLOT???????
S25	0	S14 AND GRAPH
S26	0	S14 AND GRAPHED
S27	0	S14 AND GRAPHS
S28	0	S14 AND GRAPHING??
S29	2	S14 AND PATTERN?????(3N)(MISS????? OR DETECT????? OR FLAW-???? OR MEASUR????? OR SENS??? OR MONITOR?????)
S30	0	S14 AND PATTERN??????(5N)ANALY??????????
S31	1	S14 AND IMAG????(8N)SERVO???????
S32	9	S14 AND REFERENC?????
S33	7	9AND10
S34	7	9AND13
S35	7	10AND13
S36	32	S4:S5 OR S13 OR S16 OR S20 OR S22:S35
S37	25	RD S36 (unique items)
S38	2521	OVERLAY?????(5N)MAP??????
S39	0	OVERLAY?????(5N)SERVOMAP?????
S40	0	OVERLAY?????(5N)SERVOLIST??????
S41	485	OVERLAY?????(5N)LIST??????
S42	461	SUBTRACT?????(5N)LIST??????
S43	485	OVERLAY?????(5N)LIST??????
S44	132	SUBTRACT?????(5N)MAP???????
S45	0	S1:S35 AND S38
S46	0	S1:S35 AND S41
S47	0	S1:S35 AND S42
S48	0	S1:S35 AND S44
S49	0	S1:S35 AND S43
S50	1	SERVOMAP????????
S51	1	S50 NOT S37

28feb05 12:02:28 User259284 Session D3091.2

SYSTEM:OS - DIALOG OneSearch
    File   2:INSPEC 1969-2005/Feb W2
            (c)   Institution of Electrical Engineers
*File   2: Price change effective Jan 1, 2005. Enter HELP
RATES 2 for details.
    File   6:NTIS 1964-2005/Feb W3
            (c)   NTIS, Intl Cpyrght All Rights Res
*File   6: Price change effective Jan 1, 2005. Enter HELP
RATES 6 for details.
    File   8:Ei Compendex(R) 1970-2005/Jan W3
            (c)   Elsevier Eng. Info. Inc.
*File   8: Price change effective Jan 1, 2005. Enter HELP
RATES 8 for details.
    File   34:SciSearch(R) Cited Ref Sci 1990-2005/Feb W3
            (c)   Inst for Sci Info
*File   34: Price change effective Jan 1, 2005. Enter HELP
RATES 34 for details.
    File   35:Dissertation Abs Online 1861-2005/Feb
            (c)   ProQuest Info&Learning
    File   65:Inside Conferences 1993-2005/Feb W4
            (c)   BLDSC all rts. reserv.
    File   92:IHS Intl.Stds.& Specs. 1999/Nov
            (c) 1999 Information Handling Services
    File   94:JICST-EPlus 1985-2005/Jan W3
            (c)2005 Japan Science and Tech Corp(JST)
    File   95:TEME-Technology & Management 1989-2005/Jan W3
            (c)   FIZ TECHNIK
*File   95: Customers in Germany, Austria, and Switzerland
should contact their local Dialog representative.
    File   99:Wilson Appl. Sci & Tech Abs 1983-2005/Jan
            (c)   The HW Wilson Co.
    File 103:Energy SciTec 1974-2005/Feb B1
            (c)   Contains copyrighted material
*File 103: For access restrictions see Help Restrict.
    File 144:Pascal 1973-2005/Feb W3
            (c)   INIST/CNRS
*File 144: Price change effective Jan 1, 2005. Enter HELP
RATES 144 for details.
    File 239:Mathsci 1940-2005/Mar
            (c)   American Mathematical Society
    File 275:Gale Group Computer DB(TM) 1983-2005/Feb 28
            (c)   The Gale Group
    File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
            (c) 1998 Inst for Sci Info
*File 434: Price change effective Jan 1, 2005. Enter HELP
RATES 434 for details.
    File 647:CMP Computer Fulltext 1988-2005/Feb W2
            (c)   CMP Media, LLC
    File 674:Computer News Fulltext 1989-2005/Feb W3
            (c)   IDG Communications
    File 696:DIALOG Telecom. Newsletters 1995-2005/Feb 27
            (c)   The Dialog Corp.

```
Set      Items    Description
S1          2     SERVOPATTERN?????
S2          0     SERVOSECTOR??????
S3         91     SERVO()DATA?????
S4        264     SERVO??(2N)PATTERN?????
S5        170     SERVO??(2N)SECTOR????????
S6        496     S1:S5
S7    2329937     IMAGE???
S8    1201614     IMAGING??
S9      25439     REFERENCE??(5N)(LIST????? OR MAP????? OR SERVOLIST???? OR -
                  SERVOMAP???? OR SERVO??)
S10        28     6AND7
S11        12     6AND8
S12        10     6AND9
S13      2011     (S7 OR S8) AND S9
S14     14211     (SIGNAL???? OR SERVOSIGNAL????)(3N)(MAP???? OR LIST?????)
S15        12     13AND14
S16        56     S10:S12 OR S15
S17         4     S16 AND GRAPH
S18         5     S16 AND GRAPHS
S19         4     S16 AND GRAPHING??
S20         0     S16 AND GRAPHED
S21        19     S16 AND TRACKS
S22         8     S16 AND MISS?????
S23        24     S16 AND TRACK
S24        44     S16 AND SERVO???????
S25         3     S16 AND PLOT????????
S26        20     S16 AND COMPAR???????
S27        24     S16 AND REFERENC????
S28        16     S16 AND STANDARD????
S29        13     S16 AND SPACE
S30         8.    S16 AND SPACES
S31         6     S16 AND GAP????
S32         7     S17:S19
S33         7     S25 OR S32
S34        26     S21 OR S23
S35        37     S26:S28
S36        23     S22 OR S29:S31
S37         2     24AND32
S38         2     24AND33
S39        20     24AND34
S40        25     24AND35
S41        17     24AND36
S42         7     32AND33AND34
S43         7     32AND33AND34ANDS35
S44         6     32AND33AND34ANDS35AND36
S45        17     39AND40
S46         9     39AND41
S47        13     40AND41
S48         9     46AND47
S49        24     S17:S19 OR S1 OR S22 OR S25 OR S30:S33 OR S37:S38 OR S42:S-
                  44 OR S46 OR S48
S50        18     RD S49 (unique items)
```